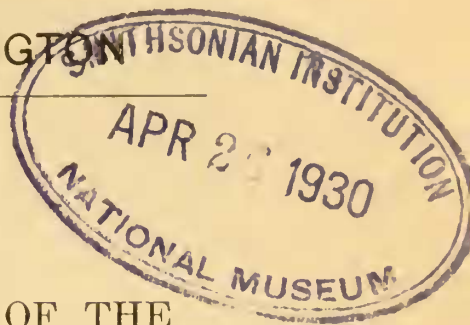


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



THE CRINITE HEADED HIERACIUMS OF THE
NORTHWEST.¹

BY HAROLD ST. JOHN AND FRED A. WARREN.

In the Pacific Northwest are a number of species of *Hieracium* or hawkweed which have the heads long soft pilose, as well as being soft hairy on most other parts. In the attempt to identify a collection of one of these from Mt. Rainier, it has been necessary to study carefully and to revise this group. The diagnostic differences can best be presented in the following key.

- A. Involucres sparsely pilose, mostly towards the base....*Hieracium griseum*.
- A.' Involucres conspicuously long pilose,
 - B. Principal cauline leaves 10-25 cm. long with the winged petiole, linear-oblongate*H. albertinum*
 - B.' Principal cauline leaves 5-9 cm. long, ovate-lanceolate or broadly oblongate and sessile or nearly so,
 - C. Stem long pilose throughout.....*H. Flettii*
 - C.' Stem glabrous above,
 - D. Involucres copiously long pilose, the hairs copper-colored when dried, those of the base exceeding the bracts..*H. Scouleri*
 - D.' Involucres moderately pilose, the hairs blackish at base, drying fuscous, those of the base not equaling the bracts, the upper ones shorter and sparse.....*H. Piperi*

Hieracium griseum Rydb., Fl. Mont. 464. 1900. This species does not really belong with the crinite headed *Hieraciums*, but is included in this study because it might be confused with some of the other species. Usually the heads lack long pilose hairs, having only short white appressed stellate hairs and more or less blackish stipitate glandular ones. Not infrequently, however, the involucral bracts bear some long pilose hairs. These are mostly towards the base, and any borne above are much shorter.

¹Contribution from the Botany Department of the State College of Washington, No. 11.

Dr. Rydberg in his original description listed the plant from Montana and Idaho. It is abundant also in British Columbia, Washington, and Oregon.

H. albertinum Farr, *Ottawa Naturalist* 20: 109. 1906., *H. Scouleri* of Gray, Howell, Piper and other W. Am. authors, not of Hooker. The writers arrived independently at the conclusion that *H. Scouleri* Hook., based primarily on Dr. Scouler's collection from the mouth of the Columbia River, could not be the long-leaved plant of the arid interior called that species by many modern authors, for instance by Piper and Beattie in the *Flora of South Eastern Washington* 251. 1914. Later they discovered that Dr. Rydberg had already published this same interpretation.¹ Two authentic Scouler specimens in the Torrey Herbarium aided him in his study.

Hieracium Flettii, n. sp. Perennial with a thickened horizontal root-stock; stems simple below, long white pilose and somewhat short white appressed stellate pubescent, 15-20 cm. tall; basal leaves withered at anthesis; lower cauline leaves oblanceolate winged-petioled entire, long white pilose throughout, about 5 cm. long and 1 cm. wide; middle and upper cauline leaves lanceolate or ovate-lanceolate entire long white pilose and short white appressed stellate pubescent throughout, 2-5 cm. long, 5-12 mm. wide, well developed leaves running up into the inflorescence; inflorescence cymose, with from 7 to 20 or more heads; heads narrowly campanulate, densely white crinite; bracts linear in one series or nearly so, darkened along the middle and whitened near the scarious margins, short white stellate pubescent, as well as with the long white pilose hairs blackened at base, 10 mm. long; rays clear yellow; pappus barbellate whitish; achenes linear or slightly broadened above, longitudinally ribbed, reddish brown, about 3 mm. long.

Perenne caule erecto folioso piloso, foliis superioribus lanceolatis vel ovato-lanceolatis integris pilosis 2-5 cm. longis 5-12 mm. latis, involucris pilosis 10 mm. longis pilosis, floribus luteis, achaeneis rubro-castaneis sulcatis 3 mm. longis.

WASHINGTON: dry rocky slopes, fairly abundant, saddle between Iron Mt. and Crystal Mt., Indian Henry's, 5900 ft. alt., Mount Rainier National Park, Aug. 21, 1927, *F. A. Warren* 626 (type in Herb. State College of Washington).

The specific name is given in recognition of the years of thorough botanical exploration of Mt. Rainier by the former Park Naturalist, J. B. Flett.

A few specimens of *H. griseum* approach this new species, but not closely enough to cause any confusion.

H. Scouleri Hook., *Fl. Bor. Am.* 1: 298. 1834. *H. longiberbe* Howell, *Fl. N. W. Am.* 395. 1901. Through the courtesy of Prof. L. F. Henderson and Mr. J. W. Thompson the writers have borrowed two Howell collections of *H. longiberbe*. In the original description no type specimen is indicated, nor is either of these two specimens so marked. However, the specimen from the Herbarium of the University of Oregon, *Howell* 579, has its label so similarly worded to the statement of habitat in the pub-

¹Fl. Mont. 464. 1900.

lished description, that we may safely conclude it to be the type. It has not been possible to determine whether the original Scouler collections from the mouth of the Columbia River were from Washington or Oregon. It may be inferred, though, that they were from the north bank of the river, as in 1825 at the time of Dr. Scouler's arrival, the Hudsons Bay Post was still near the mouth of the river on the north side, i. e., within the present boundaries of Washington. The following specimens have been examined:

OREGON: on a bluff along the Columbia River near the Cascades, July, 1880, *T. Howell* 579; Oneonta, June, 1886, *T. Howell*; on bluffs above Multnomah Falls, June 18, 1927, *J. W. Thompson* 2704.

Hieracium Piperi, n. sp. Probably a perennial but the root not seen; stem simple below, leafy up to and into the inflorescence, glabrate below, sparingly pilose along the middle, and glabrous above, purplish nearly throughout; basal leaves withered at anthesis; lower cauline leaves withered, but obviously oblanceolate and long petioled; middle and upper cauline leaves sessile, broadly lanceolate to ovate entire abruptly acute long yellowish pilose on the margins and on the principal nerves beneath, glabrous above, 2–8 cm. long, 1–3 cm. broad; inflorescence cymose with about 25 heads; heads narrowly campanulate; bracts linear in one series or nearly so, dark except on the white scarious margins, sparsely short white stellate pubescent as well as crinite with long pilose hairs, which are blackened below and dry fuscous, tip of peduncle also crinite, bracts 8–9 mm. long; rays apparently ochroleucous; pappus barbellate white; mature achenes not seen.

Perenne caule erecto folioso, foliis superioribus ovatis integris ad marginem pilosis; bracteis linearibus crinitis 8–9 mm. longis, ligulis ochroleucis.

WASHINGTON: Cape Horn, June 26, 1904, *C. V. Piper* 4977 (type in Herb. State College of Washington).

The specific name is given in honor of the collector, the late Dr. Charles Vancouver Piper. It is a pleasure to name a species for such a pioneer, who did so much botanical work and did it so well, that all succeeding generations of botanists in the Northwest will be in debt to him.

This new species adds another to the considerable number of local and unique plants that have been discovered in the deep gorge where the Columbia River cuts its way through the Cascade Mountain Range. It most closely resembles *H. Scouleri* Hook. Besides the characters used in the key, this latter species may be distinguished by having the stems densely pilose below, the leaves generally pilose beneath, the upper leaves lanceolate, and the rays yellow. *H. Piperi* has, on the other hand, the stem glabrate below, the leaves only sparingly pilose on the midrib or principal veins beneath, the upper leaves ovate, and the rays ochroleucous. The white flowered *H. albiflorum* Hook. has the bracts usually glabrous, but occasionally with a few pilose hairs. It has, in any case, a prominent rosulate cluster of leaves at the base, the leaves generally pilose above, and the upper leaves much reduced. *H. Piperi* is separated by having the few basal leaves withering, the leaves glabrous above, and the upper leaves prominent and scarcely reduced.